U.S. NUCLEAR REGULATORY COMMISSION

STANDARD REVIEW PLAN

OFFICE OF NUCLEAR REACTOR REGULATION

9.1.5 OVERHEAD HEAVY LOAD HANDLING SYSTEMS

REVIEW RESPONSIBILITIES

Primary - ~~Auxiliary Systems Branch (ASB)~~Plant Systems Branch (SPLB)[1]

Secondary - ~~None~~Civil Engineering and Geosciences Branch (ECGB)[2]

I. AREAS OF REVIEW

The ~~ASB~~SPLB[3] reviews overhead heavy load handling systems (OHLHS) consisting of all components and equipment used in moving all heavy loads, i.e., loads weighing more than one fuel assembly and its associated handling device at the plant site to ~~assure~~ensure[4] conformance with the requirements of General Design Criteria 2, 5, and 61. The design layout, which shows the functional geometric layout of the handling equipment, including the areas of movement over and around the fixed locations of safety-related facilities during the handling of heavy loads, is reviewed to determine that the various handling operations can be performed safely. The main emphasis in the OHLHS review is on critical load handling in which inadvertent operations or equipment malfunctions, either separately or in combination, could cause a release of radioactivity, a criticality accident, the inability to cool fuel within the reactor vessel or spent fuel pool or prevent safe shutdown of the reactor:

1. The ~~ASB~~SPLB[5] reviews the transporting, hoisting, and rigging operations in the OHLHS as to methods, selection of handling equipment, and safety devices.

2. The ~~ASB~~SPLB[6] reviews the design of those OHLH systems used in critical load handling operations, i.e., those loads which if dropped have the potential of leading to unacceptable consequences. This review encompasses the following areas:

   a. the specified performance and load handling requirements as compared ~~to~~with[7] the actual requirements,

   b. the adequacy of the design, fabrication, installation, inspection, and testing requirements,

   c. the adequacy of operator training, load handling procedures and instructions, and

   d. the adequacy of the measures taken to ~~assure~~ensure, to the extent possible, that safe load paths are followed. Also, that operational procedures and instructions as well as mechanical and electrical devices are provided to ~~assure~~ensure travel along safe load paths.

Review Interfaces[8]

1. ~~ASB~~SPLB[9] also performs the following reviews under the Standard Review Plan (SRP),[10] sections indicated:

   a. Review of flood protection is performed under SRP Section 3.4.1.

   b. Review of the protection against internally generated missiles is performed under SRP Section 3.5.1.1.

   c. Review of the structures, systems and components to be protected against externally generated missiles is performed under SRP Sections 3.5.1.4 and 3.5.2.

   d. Review of high- and moderate-energy pipe breaks is performed under SRP Section 3.6.1.

   e. Review of the environmental qualification of mechanical and electrical equipment is performed under SRP Section 3.11.[11]

   f. Review of Fire Protection is performed under SRP Section 9.5.1.[12]

2. In addition, ~~ASB~~SPLB[13] will coordinate other branches evaluations that interface with the overall evaluation of the OHLHS. The coordinated reviews are as follows:

   a. The Civil Engineering and Geosciences Branch (ECGB) performs the following:

      i. Determines the acceptability of the design analyses, procedures, and criteria used to establish the ability of seismic Category I structures housing the system and supporting systems to withstand the effects of natural phenomena such as the safe shutdown earthquake (SSE), the

probable maximum flood (PMF), and tornado missiles as part of its primary review responsibility for SRP Sections 3.3.1, 3.3.2, 3.5.3, 3.7.1 through 3.7.4, 3.8.4, and 3.8.5.

ii. Verifies that inservice inspection requirements are met for system components as part of its primary review responsibility for SRP Section 6.6.

b. The Mechanical Engineering Branch (EMEB) performs the following:

i. Verifies that components, piping and structures are designed in accordance with applicable codes and standards as part of its primary review responsibility for SRP Sections 3.9.1 through 3.9.3.

ii. Determines the acceptability of the seismic and quality group classifications for system components as part of its primary review responsibility for SRP Sections 3.2.1 and 3.2.2.

ii. Reviews the adequacy of the inservice testing program of pumps and valves as part of its primary review responsibility for SRP Section 3.9.6.

iii. Reviews the seismic qualification of Category I instrumentation and electrical equipment as part of its primary review responsibility for SRP Section 3.10.

c. The Materials and Chemical Engineering Branch (EMCB):

i. Upon request, verifies the compatibility of the materials of construction with service conditions.

ii. Performs and coordinates the review for Fire Protection as part of their primary review responsibility for SRP Section 9.5.1.

d. The Technical Specifications Branch (TSB) performs and coordinates the review for Technical Specifications as part of their primary review responsibility for SRP Section 16.0.

e. The Quality Assurance and Maintenance Branch (HQMB) performs and coordinates the review for Quality Assurance as part of their primary review responsibility for SRP Section 17.3.

f. The Instrumentation and Control Systems Branch (HICB) will determine the adequacy of the design installation, inspection, and testing of all essential electrical components (sensing, control, and power) as part of their primary review responsibility for SRP Section 7.6.

g. The Electrical Engineering Branch (EELB) will determine the adequacy of the design, installation, inspection, and testing of all essential electrical components (sensing, control, and power) as part of their primary review responsibility for SRP Section 8.0.

h. The Emergency Preparedness and Radiation Protection Branch (PERB) reviews the design of the fuel handling system and the spent fuel transfer process to determine whether occupational radiation exposures during spent fuel handling operations will be as low as practicable as part of its primary responsibility for SRP Section 12.3.[14]

~~In addition, ASB will coordinate other branches evaluations that interface with the overall evaluation of the OHLHS. The coordinated reviews are as follows:~~

~~The Structural Engineering Branch (SEB) determines the acceptability of the design analyses, procedures, and criteria used to establish the ability of seismic Category I structures housing the system and supporting systems to withstand the effects of natural phenomena such as the safe shutdown earthquake (SSE), the probable maximum flood (PMF), and tornado missiles as part of its primary review responsibility for SRP Sections 3.3.1, 3.3.2, 3.5.3, 3.7.1 through 3.7.4, 3.8.4, and 3.8.5. The Mechanical Engineering Branch (MEB) determines that the components, piping and structures are designed in accordance with applicable codes and standards as part of its primary review responsibility for SRP Sections 3.9.1 through 3.9.3. The MEB, also, determines the acceptability of the seismic and quality group classifications for system components as part of its primary review responsibility for SRP Sections 3.2.1 and 3.2.2. The MEB also reviews the adequacy of the inservice testing program of pumps and valves as part of its primary review responsibility for SRP Section 3.9.6. The Materials Engineering Branch (MTEB) verifies that inservice inspection requirements are met for system components as part of its primary review responsibility for SRP Section 6.6, and, upon request, verifies the compatibility of the materials of construction with service conditions. The review for Fire Protection, Technical Specifications, and Quality Assurance are coordinated and performed by the Chemical Engineering Branch, Licensing Guidance Branch and Quality Assurance Branch as part of their primary review responsibility for SRP Sections 9.5.1, 16.0 and 17.0, respectively. The Instrumentation and Control Systems Branch (ICSB) and Power Systems Branch (PSB) will determine the adequacy of the design, installation, inspection, and testing of all essential electrical components (sensing, control, and power) as part of their primary review responsibility for SRP Sections 7.6 and 8.0 respectively. The Radiological Assessment Branch (RAB) reviews the design of the fuel handling system and the spent fuel transfer process to determine whether occupational radiation exposures during spent fuel handling operations will be as low as practicable as part of its primary responsibility for SRP Section 12.3. The Equipment Qualification Branch (EQB) reviews the seismic qualification of Category I instrumentation and electrical equipment and the environmental qualification of mechanical and electrical equipment as part of its primary review responsibility for SRP Sections 3.10 and 3.11 respectively.~~[15]

For those areas of review identified as part of the primary responsibility of other branches, the acceptance criteria and methods of application are contained in the referenced SRP section.

II. ACCEPTANCE CRITERIA

Acceptability of the OHLHS design, as described in the applicant's safety analysis report (SAR) including related sections of Chapters 2 and 3 of the SAR, is based on specific General Design Criteria, regulatory guides, and safety engineering codes and standards. Listed below are specific criteria as they relate to the OHLHS.

The OHLHS is acceptable if the integrated design of the structural, mechanical, and electrical elements, the manual and automatic operating controls, the safety interlocks and devices, and the load handling instructions, inspections, maintenance and testing, provide adequate system control for the specific procedures of handling operations, if the redundancy and diversity needed to protect against malfunctions or failures are provided, and if the design conforms to the relevant requirements of the following regulations:

1. General Design Criterion 2 (GDC 2),[16] as related to the ability of structures, equipment, and mechanisms to withstand the effects of earthquakes. Acceptance is based in part on meeting position C.1 of Regulatory Guide 1.29 for safety-related equipment and position C.2 for nonsafety-related equipment, and positions C.1 and C.6 of Regulatory Guide 1.13.

2. General Design Criterion 4 (GDC 4),[17] as it relates to protection of safety-related equipment from the effects of internally generated missiles (i.e., dropped loads). Acceptance is based in part on meeting positions C.3 and C.5 of Regulatory Guide 1.13.

3. General Design Criterion 5 (GDC 5),[18] as related to the sharing of equipment and components important to safety.

4. General Design Criterion 61 (GDC 61),[19] as related to the safe handling and storage of fuel.

Other specific criteria necessary to meet the relevant requirements of General Design ~~Criterion~~ Criteria[20] 2, 4, and 61 are as follows:

a. NUREG-0554 ~~(formerly proposed Regulatory Guide 1.104 and Branch Technical Position ASB 9-1)~~[21], as modified by Generic Letter 83-042,[22] to ensure that power control systems do not cause a load drop.

b. NUREG-0612, as modified by Generic Letter 85-011.[23]

c. ANS 57.1/ANSI N208.

d. ANS 57.2/ANSI N210.

Technical Rationale[24]

The technical rationale for application of these acceptance criteria to reviewing overhead heavy load handling systems is discussed in the following paragraphs:[25]

1. Compliance with GDC 2 requires that structures, systems, and components important to safety shall be designed to resist the effects of natural phenomena such as earthquakes.

   GDC 2 is applicable to SRP Section 9.1.5 because it specifies the natural phenomenon (i.e., earthquake) that must be considered in the design of the OHLHS. If not considered, an earthquake could overload OHLHS structures, systems, and components to the extent that it could cause an unsafe condition (e.g., a dropped heavy load in a critical area). The potential release of radioactive materials from damaged irradiated fuel or a criticality accident could result in unacceptable personnel radiation exposures. SRP Section 9.1.5 cites Regulatory Guide 1.29, position C.1 for safety-related portions and position C.2 for nonsafety-related portions of the design, as well as positions C.1 and C.6 of Regulatory Guide 1.13. These positions provide guidance for meeting these requirements.

   Meeting these requirements provides assurance that structures, systems, and components associated with the OHLHS will perform their functions safely.[26]

2. Compliance with GDC 4 requires that structures, systems, and components important to safety be protected against the effects of missiles.

   GDC 4 is applicable to SRP Section 9.1.5 because GDC 4 specifies protection against the effects internally generated missiles (i.e., roped loads). A dropped heavy load in a critical area could cause a release of radioactive materials, a criticality accident, the inability to cool fuel within the reactor vessel or spent fuel pool, or prevent safe shutdown of the reactor. Positions C.3 and C.5 of Regulatory Guide 1.13 provide guidance for meeting these requirements.

   Meeting these requirements provides assurance that structures, systems, and components associated with the OHLHS will perform their functions safely.[27]

3. Compliance with GDC 5 requires that structures, systems, and components important to safety shall not be shared by nuclear power units unless it can be shown that such sharing will not significantly impair their ability to perform their safety function, including, in the event of an accident in one unit, an orderly shutdown and cooldown of the remaining units.

   GDC 5 is applicable because the OHLHS may be shared in multiple-unit plants. A single failure of the OHLHS will not cause a dropped load; therefore, its safety function will not be impaired nor will it prevent the safe shutdown and cooldown of either or both units. SRP Section 9.1.5 provides guidance to meet these requirements.

   Meeting this requirement provides assurance that the OHLHS and associated components will continue to perform their required safety functions if is shared by nuclear power units given a single failure of the OHLHS.[28]

4. Compliance with GDC 61 requires, in part, that fuel storage and handling, radioactive waste, and other systems that may contain radioactive materials be designed in manner that ensures adequate safety under normal and postulated accident conditions.

The requirements of GDC 61 are imposed on SRP Section 9.1.5 because it requires that the OHLHS be designed to ensure safety under normal accident and conditions. The OHLHS is concerned with handling heavy loads in critical areas (e.g., over the open reactor vessel or over the spent fuel pool). A malfunction of the OHLHS in such areas could cause a release of radioactive materials, a criticality accident, the inability to cool fuel within the reactor vessel or spent fuel pool, prevent safe shutdown of the reactor, or could release fission products — thus potentially causing unacceptable personnel exposures. SRP Section 9.1.5 cites Regulatory Guide 1.13, position C.3, and ANS 57.1/ANSI N208 to provide guidance for meeting these requirements.

Meeting these requirements provides assurance that personnel working with the OHLHS will be working under adequately safe conditions and that personnel exposure to radiation will be within safe limits.[29]

III. REVIEW PROCEDURES

The OHLHSs are provided for handling heavy loads i.e., loads whose weight exceeds that of one fuel assembly and its associated handling device such as a reactor vessel head, internals, shield plug segments and spent fuel casks. Due to variations in plant designs, the ~~ASB~~SPLB[30] shall review the analyses made of the potential consequences that could follow the dropping of each heavy load at any point along its path of travel. In those cases where the consequences are unacceptable the load is to be considered a critical load and hence subject to the acceptance criteria presented in this SRP section. The general objective of the review is to confirm that the OHLHS design precludes system malfunctions or failures that would prevent safe shutdown of the reactor, or cause an unacceptable release of radioactivity, a criticality accident or the inability to cool the fuel in the reactor vessel or spent fuel storage pool.

The procedures listed here are used in the construction permit (CP) or early site permit[31] review to determine that the OHLHS design criteria and bases and the preliminary OHLHS design described in the SAR meet the acceptance criteria given in subsection II of this SRP section. For operating license (OL) or combined license (COL)[32] reviews the procedures are used to verify that the design criteria and bases have been appropriately implemented in the OHLHS final design.

Upon request by the ~~ASB~~SPLB,[33] the coordinating review branches will provide input for the areas of review in subsection I of this SRP section. The ~~ASB~~SPLB[34] obtains and uses such input as required to ~~assure~~ensure that this review procedure is complete.

The reviewer will select and emphasize material from this SRP section, as may be appropriate for a particular case:

1. The system performance requirements for the OHLHS are reviewed to determine that they cover the handling system concept used in the design, and describe the component and subsystem functions within the integrated systems. The performance requirements should also define any degradation considered for components and describe the procedures that are followed to detect and correct degraded conditions.

2. The performance specifications required as part of the design and described in the SAR are reviewed to determine that the design, material selection, manufacturing, installation, testing, and operating procedures equal or exceed the performance requirements and are within the state-of-the-art practice.

3. The information presented in the SAR is reviewed to determine that the specific arrangement of the systems and subsystems and the load handling paths to be used are described with respect to locations of equipment. The reviewer determines that the heavy loads will not be transported over equipment which would lead to unacceptable consequences should the load be dropped. For overhead cranes and associated lifting devices that do not pose an unacceptable risk to plant structures or equipment, the reviewer covers the following points:

   a. The size, shape, and dimensions of the potentially most damaging load (the load which, if dropped by the crane, will cause the most damage), its weight and center of gravity, lifting points, stability, and handling speeds are compared with the performance specifications to determine the compatibility of the design with load handling and movement requirements. The reviewer uses the guidance of NUREG-0554, as modified by Generic Letter 83-42,[35] and NUREG-0612, as modified by Generic Letter 85-011,[36] as well as the requirements of codes and standards and, if required, performs an independent analysis to determine acceptability of the system.

   b. The instrumentation and control system, including the limit and safety devices provided for automatic and manual operation for both normal and emergency conditions, that are required to operate to maintain safety in the event of a failure of the system, are reviewed. The results of failure modes and effects analyses are used by the reviewer to determine that the control system adequately limits loads or limits crane load movement, assuming a single failure, without affecting the function of essential equipment or causing the release of radioactivity.

   c. The description of operating and test procedures presented in the SAR is reviewed to determine that load proof-testing, design-rated load testing, nondestructive testing, preventive checks, and inspections are in accordance with the requirements of the appropriate safety standards.

4. For cranes that have been designed to be single failure-proof, the reviewer determines that the design conforms to NUREG-0554 (as modified by Generic Letter 83-42)[37] and NUREG-0612 (as modified by Generic Letter 85-011) and ensures that a single failure in the electric power/control system will not cause a load drop.[38]

5. The review for seismic design is performed by ~~SEB~~ECGB[39] and the review for seismic and quality group classification is performed by MEB as indicated in subsection I of this SRP section.

For standard design certification reviews under 10 CFR Part 52, the procedures above should be followed, as modified by the procedures in SRP Section 14.3 (proposed), to verify that the

design set forth in the standard safety analysis report, including inspections, tests, analysis, and acceptance criteria (ITAAC), site interface requirements and combined license action items, meet the acceptance criteria given in subsection II. SRP Section 14.3 (proposed) contains procedures for the review of certified design material (CDM) for the standard design, including the site parameters, interface criteria, and ITAAC.[40]

IV. EVALUATION FINDINGS

The reviewer verifies that the information provided and his review support conclusions of the following type, to be included in the staff's safety evaluation report (SER):

> The OHLH systems include all components and equipment used in the handling of all heavy loads at the plant site over the lifetime of the facility. Based on the review of the applicant's proposed design criteria and design bases for the OHLHS, and the requirements for safe operation of the OHLHS, the staff concludes that the design of the OHLHS and supporting systems is in conformance with the Commission's regulations as set forth in General Design Criteria 2, 4, 5, and 61. This conclusion is based on the following:
>
> 1. The requirements of General Design Criterion 2 are met as they relate to protection against the effects of earthquakes since the safety-related portions of the system are designed in accordance with position C.1 of Regulatory Guide 1.29 and C.1 of Regulatory Guide 1.13 and the nonsafety-related portions meet position C.2 of Regulatory Guide 1.29 and position C.6 of Regulatory Guide 1.13. In meeting Criterion 2, the applicant has also designed the systems to meet the guidelines of NUREG-0554 and NUREG-0612 as they relate to protection against natural phenomena.
>
> 2. The requirements of General Design Criteria 4 and 61 are met as they relate to prevention of internally generated missiles that could prevent safe shutdown, cause an unacceptable release of radioactivity, a criticality accident or the inability to cool the fuel in the reactor vessel or spent fuel storage pool. To meet Criteria 4 and 61 the applicant designed the systems in accordance with positions C.3 and C.5 of Regulatory Guide 1.13 and followed the guidelines of NUREG-0554 (as modified by Generic Letter 83-042)[41] and NUREG-0612 (as modified by Generic Letter 85-011)[42] and followed industry standards ANS 57.1/ANSI N208 and ANS 57.2/ANSI N210 in the system design.
>
> 3. The requirements of General Design Criterion 5 are met since any single failure will not impair the safety function of the overhead heavy load handling system nor prevent the safe shutdown and cooldown of either or both units.

For design certification reviews, the findings will also summarize, to the extent that the review is not discussed in other safety evaluation report sections, the staff’s evaluation of inspections, tests, analyses, and acceptance criteria (ITAAC), including design acceptance criteria (DAC), site interface requirements, and combined license action items that are relevant to this SRP section.[43]

V. IMPLEMENTATION

The following is intended to provide guidance to applicants and licensees regarding the NRC staff's plans for using this SRP section.

This SRP section will be used by the staff when performing safety evaluations of license applications submitted by applicants pursuant to 10 CFR 50 or 10 CFR 52.[4] Except in those cases in which the applicant proposes an acceptable alternative method for complying with specified portions of the Commissions Regulations, the method described herein will be used by the staff in its evaluation of conformance with Commission Regulations.

The provisions of this SRP section apply to reviews of applications docketed six months or more after the date of issuance of this SRP section.[45]

Implementation schedules for conformance to parts of the method discussed herein are contained in the referenced Regulatory Guides and NUREGs.

VI. REFERENCES

1. 10 CFR Part 50, Appendix A, General Design Criterion 2, "Design Bases for Protection Against Natural Phenomena."

2. 10 CFR Part 50, Appendix A, General Design Criterion 5, "Sharing of Structures, Systems and Components."

3. 10 CFR Part 50, Appendix A, General Design Criterion 61, "Fuel Storage and Handling and Radioactivity Control."

4. Regulatory Guide 1.13, "Spent Fuel Storage Facility Design Bases."

5. Regulatory Guide 1.29, "Seismic Design Classification."

6. NUREG-0554, "Single-Failure-Proof Cranes for Nuclear Power Plants."

7. NUREG-0612, "Control of Heavy Loads At Nuclear Power Plants."

8. ANS 57.1/ANSI N208-1980,[46] "Design Requirements for Light Water Reactor Fuel Handling System."

9. ANS 57.2/ANSI N210-1976,[47] "Design Objectives for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants."

10. Generic Letter 83-042 - Clarification to Generic letter 81-07 Regarding Response to NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants."[48]

11. Generic Letter 85-011 - Completion of Phase II of "Control of Heavy Loads at Nuclear Power Plants" (NUREG-0612).[49]

SRP Draft Section 9.1.5
Attachment A - Proposed Changes in Order of Occurrence

Item numbers in the following table correspond to superscript numbers in the redline/strikeout copy of the draft SRP section.

Item	Source	Description
1.	Current PRB name and abbreviation	Changed PRB to Plant Systems Branch (SPLB).
2.	Current SRB name and abbreviation	Changed SRB to Civil Engineering and Geosciences Branch (ECGB).
3.	Current PRB abbreviation	Changed PRB to SPLB.
4.	Editorial	Replaced "assure" with "ensure" (global change to this SRP section).
5.	Current PRB name and abbreviation	Changed PRB to SPLB.
6.	Current PRB abbreviation	Changed PRB to SPLB.
7.	Editorial	Replace "compared to" with "compared with" to accommodate scientific usage (global change for this SRP section).
8.	SRP-UDP format item	Added "Review Interfaces" to AREAS OF REVIEW and organized into numbered paragraph form to describe how SPLB reviews aspects of the OHLHS under other SRP sections and how other branches support the review of the OHLHS. Items II.3.a through 11.3.d were retained.
9.	Current PRB abbreviation	Changed PRB to SPLB.
10.	Editorial	Defined SRP.
11.	SRP-UDP format item	Reorganized as SPLB responsibility under "Review Interfaces."
12.	SRP-UDP format item	Reorganized as SPLB responsibility under "Review Interfaces."
13.	Current PRB abbreviation	Changed PRB to SPLB.
14.	SRP-UDP format item	Reorganized text describing review interfaces.
15.	SRP-UDP format item	Reorganized lined-out text into new "Review Interfaces" subsection.
16.	Editorial	Introduced "GDC 2" as initialism for "General Design Criterion 2."
17.	Editorial	Introduced "GDC 4" as initialism for "General Design Criterion 4."
18.	Editorial	Introduced "GDC 5" as initialism for "General Design Criterion 5."
19.	Editorial	Introduced "GDC 61" as initialism for "General Design Criterion 61."

Item	Source	Description
20.	Editorial	Corrected "Criterion" to "Criteria."
21.	SRP-UDP format item	Deleted since referenced items are no longer required with the addition of GL 83-042.
22.	Integrated Impact No. 810	Added "as modified by Generic Letter 83-042."
23.	Integrated Impact No. 809	Added "as modified by Generic Letter 85-011."
24.	SRP-UDP format item	Added "Technical Rationale" to ACCEPTANCE CRITERIA subsection and formatted in numbered paragraph form to describe the bases for referencing the GDC.
25.	SRP-UDP format item	Added lead-in sentence for "Technical Rationale."
26.	SRP-UDP format item	Added technical rationale for GDC 2.
27.	SRP-UDP format item	Added technical rationale for GDC 4.
28.	SRP-UDP format item	Added technical rationale for GDC 5.
29.	SRP-UDP format item	Added technical rationale for GDC 61.
30.	Current PRB abbreviation	Changed PRB to SPLB.
31.	SRP-UDP format item	Added "or early site permit" to accommodate 10 CFR 50.52.
32.	SRP-UDP format item	Added "or combined license (COL)" to accommodate 10 CFR 50.52.
33.	Current PRB abbreviation	Changed PRB to SPLB.
34.	Current PRB abbreviation	Changed PRB to SPLB.
35.	Integrated Impact No. 810	Added "as modified by Generic Letter 83-42."
36.	Integrated Impact No. 808	Added "(as modified by Generic Letter 85-011)."
37.	Integrated Impact No. 810	Added "(as modified by Generic Letter 83-42)."
38.	Integrated Impact No. 810	Added "and ensures that a single failure in the electric power/control system will not cause a load drop" to accommodate Integrated Impact No. 810 and GL83-042.
39.	Current PRB abbreviation	Changed PRB to ECGB.
40.	SRP-UDP Guidance, Implementation of 10 CFR 52	Added standard paragraph to address application of Review Procedures in design certification reviews.
41.	Integrated Impact No. 810	Added "(as modified by Generic Letter 83-042)" to accommodate Integrated Impact No. 810 and GL 83-042.
42.	Integrated Impact No. 809	Added "(as modified by Generic Letter 85-011)" to Subsection IV.2 to accommodate GL 85-011

Item	Source	Description
43.	SRP-UDP Format Item, Implement 10 CFR 52 Related Changes	To address design certification reviews a new paragraph was added to the end of the Evaluation Findings. This paragraph addresses design certification specific items including ITAAC, DAC, site interface requirements, and combined license action items.
44.	SRP-UDP Guidance, Implementation of 10 CFR 52	Added standard sentence to address application of the SRP section to reviews of applications filed under 10 CFR Part 52, as well as Part 50.
45.	SRP-UDP Guidance	Added standard paragraph to indicate applicability of this section to reviews of future applications.
46.	**Integrated Impact No. 1436**	Revised the reference to ANS 57.1/ANSI N208 to add the applicable version date.
47.	**Integrated Impact No. 1437**	Revised the reference to ANS 57.2/ANSI N210 to add the applicable version date.
48.	SRP-UDP format item	Added Reference 10, GL-83-042, which was cited in subsection II.a, to accommodate Integrated Impact No. 810.
49.	SRP-UDP format item	Added Reference 11, GL-85-011, which was cited in subsection II.b, to accommodate Integrated Impact No. 810.

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SRP Draft Section 9.1.5
Attachment B - Cross Reference of Integrated Impacts

Integrated Impact No.	Issue	SRP Subsections Affected
668	SRP Section 9.1.5 cites ANS 57.2/ANSI N210 with no date specified. The latest version is ANS 57.1 1983.	No change made as a result of Integrated Impact No. 668. See action taken by Integrated Impact No. 1437.
669	Consider performing side-by-side comparison between the cited and latest version of the standard to allow SRP reviewers to use the latest version. The latest version cited is ANS 57.1 1992.	No change made as a result of Integrated Impact No. 669. See action taken by Integrated Impact No. 1436.
809	Modify acceptance criteria and review procedures related to the use of NUREG-0612 as modified by GL 85-011.	Subsection II.b., III.3.a, III.4, IV.2, and VI.11.
810	Consider modifying the review procedures to reflect the Staff's concern (GL 83-42) on the use of NUREG-0554 regarding single failure proof cranes.	Subsection II.a, III.4, IV.2 and VI.10
1436	Update the citation of ANS 57.1/ANSI N208 to cite the 1980 version.	Subsection VI.8
1437	Update the citation of ANS 57.2/ANSI N210 to cite the 1976 version.	Subsection VI.9